#### §86.098-24

methanol-fueled heavy-duty vehicle evaporative family:

- (1) In the application for certification the projected sales volume of evaporative families certifying to the respective evaporative test procedure and accompanying standards as set forth or otherwise referenced in §§ 86.090-8, 86.090-9, 86.091-10 and 86.094-11 or as set forth or otherwise referenced in §§ 86.096–8, 86.096–9, 86.096–10 and 86.098– 11 or as set forth or otherwise refemissions erenced in superseding standards sections. Volume projected to be produced for U.S. sale may be used in lieu of projected U.S. sales.
- (2) End-of-year reports for each evaporative family.
- (i) These end-of-year reports shall be submitted within 90 days of the end of the model year to: For heavy-duty engines—Director, Engine Programs and Compliance Divisions (6403J), For vehicles—Director, Vehicle Compliance and Programs Division (6405J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
- (ii) These reports shall indicate the model year, evaporative family and the actual U.S. sales volume. The manufacturer may petition the Administrator to allow volume produced for U.S. sale to be used in lieu of U.S. sales. Such petition shall be submitted within 30 days of the end of the model year to the Manufacturers Operations Division. For the petition to be granted, the manufacturer must establish to the satisfaction of the Administrator that production volume is functionally equivalent to sales volume.
- (iii) The U.S. sales volume for end-ofyear reports shall be based on the location of the point of sale to a dealer, distributor, fleet operator, broker, or any other entity that comprises the point of first sale.
- (iv) Failure by a manufacturer to submit the end-of-year report within the specified time may result in certificate(s) for the evaporative family(ies) being voided ab initio plus any applicable civil penalties for failure to submit the required information to the Agency.
- (v) The information shall be organized in such a way as to allow the Administrator to determine compliance

with the Evaporative Emission Testing implementation schedules of §§ 86.096–8, 86.096–9, 86.096–10 and 86.098–11.

[58 FR 16025, Mar. 24, 1993, as amended at 58 FR 34536, June 28, 1993; 59 FR 16290, Apr. 6, 1994; 62 FR 54717, Oct. 21, 1997; 75 FR 22979, Apr. 30, 2010]

#### §86.098-24 Test vehicles and engines.

(a)(1)–(4) [Reserved]

- (a)(5) The gasoline-fueled and methanol-fueled light-duty vehicles and light-duty trucks covered by an application for certification will be divided into groupings which are expected to have similar evaporative and/or refueling emission characteristics (as applicable) throughout their useful life. Each group of vehicles with similar evaporative and/or refueling emission characteristics shall be defined as a separate evaporative/refueling emission family.
- (a)(6) For gasoline-fueled or methanol-fueled light-duty vehicles and light-duty trucks to be classed in the same evaporative/refueling emission family, vehicles must be similar with respect to the items listed in paragraphs (a)(6) (i) through (xii) of this section.
- (i) Type of vapor storage device (e.g., canister, air cleaner, crankcase).
  - (ii) Basic canister design.
- (A) Working capacity—grams adsorption within a 10g. range.
- (B) System configuration—number of canisters and method of connection (i.e., series, parallel).
- (C) Canister geometry, construction and materials.
  - (iii) Fuel system.
- (iv) Type of refueling emission control system—non-integrated or integrated with the evaporative control system. Further, if the system is non-integrated, whether or not any other evaporative emissions, e.g. diurnal or hot soak emissions, are captured in the same storage device as the refueling emissions.
- (v) Fillpipe seal mechanism—mechanical, liquid trap, other.
  - (vi) Fill limiter system.
- (vii) Vapor control system or method of controlling vapor flow through the vapor line to the canister.
  - (viii) Vapor/liquid separator usage.

### **Environmental Protection Agency**

- (ix) Purge system (valve, purge strategy and calibrations).
- (x) Vapor hose diameter and material.
- (xi) Canister location (front, rear, mid-vehicle).
- (xii) Onboard diagnostic hardware and calibrations.
- (a)(7) Where vehicles are of a type which cannot be divided into evaporative/refueling emission families based on the criteria listed above (such as non-canister control system approaches), the Administrator will establish families for those vehicles based upon the features most related to their evaporative and/or refueling emission characteristics.
  - (b)(1)(i)-(vi) [Reserved]
- (b)(1)(vii)(A) Vehicles of each evaporative/refueling emission family will be divided into evaporative/refueling emission control systems.
- (B) The Administrator will select the vehicle expected to exhibit the highest evaporative and/or refueling emissions, from within each evaporative/refueling family to be certified, from among the vehicles represented by the exhaust emission-data selections for the engine family, unless evaporative and/or refueling testing has already been completed on the vehicle expected to exhibit the highest evaporative and/or refueling emissions for the evaporative/refueling family as part of another engine family's testing.
- (C) If the vehicles selected in accordance with paragraph (b)(1)(vii)(B) of this section do not represent each evaporative/refueling emission control system then the Administrator will select the highest expected evaporative/refueling emission vehicle from within the unrepresented evaporative/refueling system.
- (viii) For high-altitude evaporative and/or refueling emission compliance for each evaporative/refueling emission family, the manufacturer shall follow one of the following procedures:
- (A) The manufacturer will select for testing under high-altitude conditions the one nonexempt vehicle previously selected under paragraph (b)(1)(vii)(B) or (b)(1)(vii)(C) of this section which is expected to have the highest level of evaporative and/or refueling emissions when operated at high altitude; or

- (B) [Reserved]
- (1)(ix)-(xii) [Reserved]
- (b)(2) [Reserved]

[59 FR 16290, Apr. 6, 1994, as amended at 75 FR 22979, Apr. 30, 2010]

## § 86.098-25 Maintenance.

- (a) [Reserved]
- (b)(1)–(2) [Reserved]
- (3)(i)-(v) [Reserved]
- (vi)(A)-(D) [Reserved]
- (E) Evaporative and/or refueling emission canister(s).
  - (F) Turbochargers.
  - (G) Carburetors.
  - (H) Superchargers.
- (I) EGR System including all related filters and control valves.
  - (J) Mechanical fillpipe seals.

 $[59\ FR\ 16291,\ Apr.\ 6,\ 1994,\ as\ amended\ at\ 75\ FR\ 22979,\ Apr.\ 30,\ 2010]$ 

# §86.098-26 Mileage and service accumulation; emission measurements.

- (a)(1) and (2) [Reserved]
- (a)(3)(i)(A)–(B) [Reserved]
- (a)(3)(ii)(A)-(B) [Reserved]
- (C) Exhaust, evaporative and refueling emissions tests (as required) for emission-data vehicle(s) selected for testing under §86.096-24(b)(1) (i), (ii), (iii), or (iv), or §86.098-24 (b)(1)(vii)(B) shall be conducted at the mileage (2,000 mile minimum) at which the engine-system combination is stabilized for emission testing under low-altitude conditions.
  - (b) [Reserved]

[59 FR 16291, Apr. 6, 1994, as amended at 60 FR 43888, Aug. 23, 1995; 75 FR 22980, Apr. 30, 2010]

## §86.098-28 Compliance with emission standards.

- (a)(1)-(3) [Reserved]
- (4) The procedure for determining compliance of a new motor vehicle with exhaust, evaporative and/or refueling emission standards (or family particulate emission limit, as appropriate) is as described in paragraphs (a)(4)(i) introductory text, (a)(4)(i)(C), (a)(4)(ii)(B) and (C), (a)(4)(iii), (a)(4)(v), (f) and (g) of this section and §86.094–28 (a)(4)(i)(A) and (B), (a)(4)(ii)(A), (a)(4)(iv)) except where specified by paragraph (a)(7) of this section for the Production AMA Durability Program.